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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,310	05/30/2000	John R. Cashman	16663-000120US	5075

20350 7590 11/05/2002

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EXAMINER

STEADMAN, DAVID J

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 11/05/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/583,310

Applicant(s)

CASHMAN ET AL.

Examiner

David J. Steadman

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 5 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: sequence comparison.

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DETAILED ACTION

Application Status

Claims 4, 5, and 37-39 are pending in the application.

Cancellation of claim 3 and amendment to the specification and claims 4, 5, and 37-39 in Paper No. 12, filed 09/03/02, is acknowledged.

Applicants' arguments presented in Paper No. 12 have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

The text of those sections of Title 35 U.S. Code not included in the instant action can be found in a prior Office action.

Claim Objections

1. Claim 37 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. The polynucleotide of SEQ ID NO:5 encodes the polypeptide sequence of SEQ ID NO:6 (see the nucleotide sequence of SEQ ID NO:5 and the amino acid sequence of SEQ ID NO:6 in the sequence listing paper copy). As such, the limitation of encoding the amino acid sequence of SEQ ID NO:6 as recited in claim 6 does not further limit claim 4. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 112, Second Paragraph

2. Claims 5, 38, and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 5 is indefinite in the recitation of "DNA sequences according to claim 4". Claim 4 is drawn to a single DNA sequence and not a plurality of DNA sequences. As such, it is unclear as to the intended

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scope of DNA sequences contained in the claimed host cell of claim 5. It is suggested that applicants clarify the meaning of the claim.

4. Claim 38 is confusing as the nucleotide sequence of SEQ ID NO:7 is not identical to SEQ ID NO:5 (see attached sequence comparison) and therefore, it is unclear as to how the nucleic acid of claim 4 can be SEQ ID NO:7. A single nucleic acid cannot have two different nucleotide sequences simultaneously. It is suggested that applicants clarify the meaning of the claim.

5. Claim 39 is confusing as the nucleic acid of SEQ ID NO:5 does not encode the polypeptide sequence of SEQ ID NO:8 (see attached sequence comparison). The polypeptide sequence of SEQ ID NO:8 is encoded by SEQ ID NO:7. Therefore, it is unclear as to how the nucleic acid of SEQ ID NO:5 can encode the polypeptide of SEQ ID NO:8. It is suggested that applicants clarify the meaning of the claim.

Claim Rejections - 35 USC § 102

6. In view of applicants' cancellation of claim 3, the rejection under 35 U.S.C. 102(b) as being anticipated by Dolphin et al. (IDS reference AA; EMBL Accession Number Z47552, 12 January, 1995) is withdrawn. While Dolphin et al. teach a nucleic acid that is 99.5 % identical to SEQ ID NO:5 and encodes an FMOS, Dolphin et al. do not teach or suggest a polynucleotide having the sequence of SEQ ID NO:5 or SEQ ID NO:7 and the examiner can find no teaching in the prior art of record to alter the sequence of Dolphin et al. to the sequence of SEQ ID NO:5.

Claim Rejections - 35 USC § 103

7. In view of applicants' cancellation of claim 3, the rejection of claim 5 under 35 U.S.C. 103(a) as being unpatentable over Dolphin in view of Sambrook (*Molecular Cloning*, 2nd Edition, 1989, Cold Spring Harbor Laboratory Press, 17.10-17.27) is withdrawn as Dolphin et al. do not teach or suggest all limitations of claim 5 as described above.

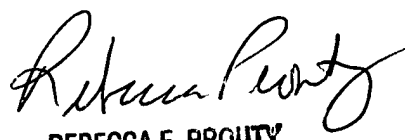
Conclusion

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8. Claim 4 appears to be in a condition for allowance.
9. Claims 5 and 37-39 would be allowable if rewritten to overcome the objection(s) and/or rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Steadman, whose telephone number is (703) 308-3934. The Examiner can normally be reached Monday-Thursday from 6:30 am to 5:00 pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (703) 308-3804. The FAX number for this Group is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Art Unit receptionist whose telephone number is (703) 308-0196.

David J. Steadman, Ph.D.
Patent Examiner
Art Unit 1652


REBECCA E. PROUTY
PRIMARY EXAMINER
GROUP 1800-
1605

US-09-583-310-5 (1-1599)

US-09-583-310-6 Sequence 6, Application US/09583310

Initial Score = 533 Optimized Score = 533 Significance = 1.41
Residue Identity = 100% Matches = 532 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0
Translation Frame= 1

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MGKKVAIIIGAGVSGLASIRSCLEEGLEPTCFEKSNDIGGLWKFS DHAEEGRASIYKSVFSNSSKEMMCFFPDF
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      80      90     100     110     120     130     140
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     150     160     170     180     190     200     210
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     220     230     240     250     260     270     280
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    290     300     310     320     330     340     350     360
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     370     380     390     400     410     420     430
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|||||
LEKSTIAVIGFVQSLGAAIPTVDLQSRWAAQVIKGTCTLPSPMEDMMNDINEKMEKKRKWFGKSETIQTDYIV
     370     380     390     400     410     420     430

     440     450     460     470     480     490     500
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     440     450     460     470     480     490     500

     510     520     530 X
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|||||
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     510     520     530 X
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Seq ID No: 5 ENCODES Seq ID No: 6

SEQ ID NO: 5 IS NOT IDENTICAL TO
SEQ ID NO: 7

US-09-583-310-5 (1-1599)

US-09-583-310-7 Sequence 7, Application US/09583310

Initial Score = 1598 Optimized Score = 1598 Significance = 0.00
Residue Identity = 99% Matches = 1598 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

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|||||
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      80      90     100     110     120     130     140

     150     160     170     180     190     200     210
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|||||
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     220     230     240     250     260     270     280
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|||||
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290     300     310     320     330     340     350     360
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|||||
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     440     450     460     470     480     490     500
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|||||
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650     660     670     680     690     700     710     720
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940 950 960 970 980 990 1000
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1370 1380 1390 1400 1410 1420 1430 1440
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|||||
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1450 1460 1470 1480 1490 1500 1510
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|||||

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1590 X

US-09-583-310-5 (1-1599)

US-09-583-310-8 Sequence 8, Application US/09583310

Initial Score = 532 Optimized Score = 532 Significance = 0.00
Residue Identity = 99% Matches = 531 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0
Translation Frame= 1

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|||||
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     510     520     530 X
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SEQ ID NO: 5

ENCODES A POLYPEPTIDE THAT IS NOT IDENTICAL
TO SEQ ID NO: 8